

1. Record Nr.	UNINA9910781970703321
Titolo	Set theory, arithmetic, and foundations of mathematics : theorems, philosophies / / edited by Juliette Kennedy, Roman Kossak [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2011
ISBN	1-107-22784-4 1-283-31675-7 1-139-13946-0 9786613316752 1-139-14524-X 1-139-14104-X 1-139-13791-3 0-511-91061-4 1-139-14192-9
Descrizione fisica	1 online resource (xiii, 227 pages) : digital, PDF file(s)
Collana	Lecture notes in logic ; ; 36
Classificazione	MAT018000
Disciplina	510
Soggetti	Set theory Logic, Symbolic and mathematical Mathematics - Philosophy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di contenuto	Historical remarks on Suslin's problem / Akihiro Kanamori -- The continuum hypothesis, the generic-multiverse of sets, and the [OMEGA] conjecture / W. Hugh Woodin -- [omega]-Models of finite set theory / Ali Enayat and James H. Schmerl and Albert Visser -- Tennenbaum's theorem for models of arithmetic / Richard Kaye -- Hierarchies of subsystems of weak arithmetic / Shahram Mohsenipour -- Diophantine correct open induction / Sidney Raffer -- Tennenbaum's theorem and recursive reducts / James H. Schmerl -- History of constructivism in the 20th century / A.S. Troelstra -- A very short history of ultrafinitism / Rose M. Cherubin and Mirco A. Mannucci -- Sue Toledo's notes of her conversations with Godel in 1972-1975 / Sue Toledo -- Stanley

Tennenbaum's Socrates / Curtis Franks -- . Tennenbaum's proof of the irrationality of $\sqrt{2}$ / Jouko Vaananen.

Sommario/riassunto

This collection of papers from various areas of mathematical logic showcases the remarkable breadth and richness of the field. Leading authors reveal how contemporary technical results touch upon foundational questions about the nature of mathematics. Highlights of the volume include: a history of Tennenbaum's theorem in arithmetic; a number of papers on Tennenbaum phenomena in weak arithmetics as well as on other aspects of arithmetics, such as interpretability; the transcript of Godel's previously unpublished 1972-1975 conversations with Sue Toledo, along with an appreciation of the same by Curtis Franks; Hugh Woodin's paper arguing against the generic multiverse view; Anne Troelstra's history of intuitionism through 1991; and Aki Kanamori's history of the Suslin problem in set theory. The book provides a historical and philosophical treatment of particular theorems in arithmetic and set theory, and is ideal for researchers and graduate students in mathematical logic and philosophy of mathematics.
